Title (en)
   FLOW METER.

Title (de)
   DURCHFLUSSMESSER.

Title (fr)
   DEBITMETRE.

Publication
   EP 0539561 B1 19950830 (DE)

Application
   EP 92910547 A 19920511

Priority
   • CA 2082882 A 19921113
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Abstract (en)
   [origin: WO9221004A1] The flow meter proposed has a helical-design deflector located in a substantially cylindrical inner housing (1), the deflector imparting a swirling motion to the fluid flowing through the inner housing. Rotatably mounted downstream of the deflector is a rotor (8) with blades (13) extending outwards from its axis of rotation (9) and with a ring (14), coaxial with the axis of rotation of the rotor, joining the blade ends to each other. The action of the moving fluid on the rotor blades (13) causes the rotor (8) to turn. Located in a circle on the outside surface (15) of the ring (14) are a multiplicity of markings (16) spaced the same angular distance apart. A beam of light passes through a window (18) in the wall of the inner housing (1) and shines on the outside surface (15) of the ring (14) with its markings (16). When the rotor (8) is rotating, images of the successive markings passing are transmitted along a fiber-optic cable (20) to a detection sensor (21), enabling the flow rate to be determined from the signals thus obtained. The flow meter has the advantage that the fluid whose rate of flow is to be measured does not have to be transparent as it has to be when a photo-electric flow meter is used, and the use of a large number of markings enables the measurement accuracy to be increased.

IPC 1-7
   G01F 1/10; G01P 5/07

IPC 8 full level
   G01F 1/10 (2006.01); **G01F 1/115** (2006.01); **G01P 5/07** (2006.01)

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